

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD JOB SHEET

CONSERVATION COVER

(327)

DEFINITION

This practice involves establishing and maintaining a protective cover of perennial vegetation to protect soil, water and wildlife resources on land retired from agriculture production.

It reduces soil erosion, associated sedimentation, improves water quality, restores native plant communities and creates or enhances wildlife habitat. Generally, this involves land under contract in land retirement program but does not exclude land retired for other reasons. The practice does not apply to planting vegetation for forage production or on critically eroding sites being protected with vegetative cover.

In selecting plant species for this practice, it is important to consider long term land use objectives. If wildlife is a consideration, adapted species are usually available that can serve more than one objective.

The following information should be used when establishing conservation cover depending on specific land use objectives. Information in tables is not exclusive. Contact NRCS specialists if other options are being considered.

The following conservation practices will be used appropriately when establishing the conservation cover: Pasture and Hayland Planting-512, Shrub and Tree Establishment-612, Upland Wildlife Habitat Management-645, Nutrient Management-590, Pest Management-595, Prescribed Burning-338, Early Successional Habitat Development/Management-647 and Firebreaks-394.

PLANTING GUIDELINES

Cover that is established by seeding shall be perennials. Annuals may be included as a companion crop in planting mixtures of perennials and with native vegetation. Annual plants for wildlife food plots may be used.

Vegetative manipulation to achieve early successional development can be accomplished by prescribed burning, mechanical, biological or chemical methods, or a combination of these where sufficient seed source is available.

Seeding of Herbaceous Vegetation

Grasses, Forbs and Legumes

Select plants that will be suitable for the planned purpose, and are suited to soil and site conditions.

Introduced perennial grasses and legumes along with planting rates and planting dates are contained in Table 1.

Native perennial grasses suitable for Blackland Prairie Restoration along with planting rates, adapted varieties and planting dates are listed in Table 2.

Native perennial grasses, forbs and legumes suitable seeding for wildlife habitat along with planting rates, adapted varieties and planting dates are listed in Tables 3 and 4. If additional species are used then at least 10% of the planting must be composed of each additional species.

Plant nutrients required for plant establishment will be applied according to the conservation practice standard, *Nutrient Management-590*.

Lime shall be applied in accordance with soil test recommendations.

Tillage operations for seedbed preparation shall be the minimum necessary to prepare an adequate seedbed for planting and establishment of cover.

Legume seed shall be inoculated with the proper inoculant according to instructions on the inoculant package.

Plant during the optimum planting dates. During planting, cover the seed with soil material to the proper seeding depth with a drill or cultipacker seeder, or if seed are surface broadcast, use a cultipacker or other suitable equipment to cover seed immediately after seeding.

Shrubs and Trees

Native shrubs suitable for wildlife are listed in Table 5. Species of trees suitable for planting and rates are listed in Table 6. Planting dates shall be in accordance with the standard *Tree/Shrub Planting-612* and/or the recommendations of the Alabama Forestry Commission.

Competition of vegetation, which will inhibit establishment of trees, shall be reduced by disking or by other mechanical means prior to planting. Herbicides may also be used before or after seedlings are planted. Apply pesticides according to the label directions. Follow the conservation practice standard *Pest Management-595*.

Firebreaks should be established along fire hazard areas, and in all areas where prescribed burning will be utilized according to the standard, *Firebreak-394*.

Permanent Wildlife Habitat

Native plant species suitable for wildlife are listed in this document or the standard *Wildlife Upland Habitat Management-645* also may be used to determine plant species and establishment techniques for permanent wildlife habitat establishment. A reduction in general agricultural seeding rates may be desirable for certain wildlife species such as bobwhite quail. This is to create open areas to allow for increased animal movement and forb production. The rates will need to meet the minimum requirements for erosion control.

Wildlife Food Plots (CP-12)

Annual plants may be used for wildlife food plots in accordance with Table 8 or the standard, *Wildlife Upland Habitat Management-645*. Additional plants may be approved if they meet program objectives.

Annual food plots shall be located on non-erodible portions of the field, otherwise practices to control erosion must be used.

Selection of suitable plant species, determination of food plot size and location, and establishment techniques will be in accordance with *Wildlife Upland Habitat Management-645 and program guidelines*.

Native Vegetation

(Early Successional Habitat Development)

Native vegetation is acceptable as cover if it is in accordance with program requirements. Practices where this is applicable include CP-10, openings on CP-3, CP-3A & CP-11, CP-4B, CP-4D. See Table 7 for a list of covers which provide best wildlife habitat. Introduced grasses are not approved cover on CP-3, CP-3A or CP-11 openings.

OPERATION AND MAINTENANCE (All Practices)

Maintenance practices and other activities which may disturb nesting are to be curtailed during the primary nesting period of April 1 through July 15. Exceptions may be granted when it is necessary to facilitate establishment of vegetative cover.

Noxious weeds in fields established to conservation cover will be controlled by mowing, fire, tillage, or herbicides as appropriate. Herbicides are recommended as the best alternative because of long lasting effects. Treat only portions of the field needing weed control (spot treatment).

Consideration for wildlife should be given by rotating management or maintenance practices throughout the managed area. For example, burn or lightly disk only one third of a field each year by treating alternate strips or alternate portions of the field instead of treating the entire field each year. Prescribed burning should be utilized instead of mowing where feasible. Burning will be in accordance with the standard, *Prescribed Burning-338*.

Plant nutrients, if required, for maintenance will be applied according to the standard, *Nutrient Management-590*.

Table 1
**INTRODUCED PERENNIAL GRASSES AND LEGUME SUITABLE
FOR
CONSERVATION COVER**

Crop	Seeding Rate/Ac.	Planting Dates & Adapted Area		
		North	Central	South
<u>PERENNIAL GRASSES</u> ^{6/}				
Bahiagrass	20 lbs.	- ^{1/}	Mar 1 - Jul 1	Feb 1 - Nov 1
Bermudagrass, common (hulled)	5 lbs.	April 1 - July 15	Mar 15 - July 15	Mar 1 - July 15
Orchardgrass	15 lbs.	Aug 15 - Nov 1	-	-
Dallisgrass	10 lbs. PLS ^{2/}	Mar 15 - Jul 1	Mar 1 - Jul 1	Feb 1 - Jul 1
Fescue, Tall	25 lbs.	Mar 1 - Apr 15 ^{3/}	-	-
Endophyte Free or novel endophyte infected		Sep 1 - Nov 1	Sep 1 - Nov 1	Sep 15 - Nov 15 ^{4/}
<u>PERENNIAL LEGUMES</u>				
White Clover	3 lbs.	Feb 1 - Apr 1	Feb 1 - Apr 1	-

1/ The dash (-) means not recommended.

2/ PLS - Pure Live Seed.

3/ Spring fescue plantings in North Alabama are limited to critical areas only.

4/ Fescue seedings and white clover seedings in South Alabama are limited to subclass w soils.

5/ When two grasses are used in mixture, reduce the seeding rate of each by 1/3. When more than two grasses are used in a mixture, reduce the seeding rate of each by 1/2.

6/ Tall fescue has the potential to become invasive if not properly managed.

Table 2
NATIVE PERENNIAL GRASS MIXTURE SUITABLE
FOR
CONSERVATION COVER
(Blackland Prairie Restoration only)

Native Grass Mixture ^{1/2/3/}	Seeding Rate	Remarks
Switchgrass	0.75 lbs PLS ^{4/}	This mixture cannot be altered without the technical approval of the NRCS State Staff Wildlife Biologist.
Indiangrass	1.0 lbs PLS	
Big Bluestem	1.25 lbs PLS	When establishing native warm season grasses, it is vital to perform herbicide application, seedbed
Little Bluestem	1.0 lbs PLS	Preparation and planting as prescribed in NRCS planting guides.
Side Oats Grama	1.25 lbs PLS	
Partridge Pea	0.5 lbs PLS	
Illinois Bundleflower	0.25 lbs PLS	
Black-eyed Susan	0.13 lbs.	
Purple Coneflower	0.13 lbs.	
Pale-Purple Coneflower	0.13 lbs. ^{5/}	
Lance-leaved Coreopsis	0.13 lbs.	

1/ Adapted Varieties of Native Grasses for Alabama are:
 Big Bluestem - Kaw & Roundtree
 Indiangrass - Lometa & Rumsey
 Side-Oats Grama - Haskell
 Switchgrass - Alamo & Cave-In-Rock

2/ The planting dates for the adapted areas are:
 Central - March 15 to July 15
 South - March 1 to July 15

3/ Seed should be covered no more than 1/4 inch deep at planting.

4/ PLS - Pure Live Seed

5/ This species is optional.

Table 3
NATIVE PERENNIAL GRASSES SUITABLE
FOR WILDLIFE HABITAT

Native Grass ^{1/2/}	Seeding Rate ^{3/4/}	Remarks
Big Bluestem	7 lbs PLS ^{5/}	A vigorous, warm season bunchgrass which grows well on most soil types. It does best on moist, well-drained soils, but is more drought tolerant than other warm season native grasses except for little bluestem.
Coastal Panicgrass	10 lbs PLS	Drought tolerant and well adapted to very sandy sites. Does well on backdune areas along the coast.
Eastern Gamagrass ^{6/}	2 lbs PLS	Well adapted to deep bottomland soils with good water holding capacity. Will tolerate flooding and somewhat poorly drained soils, but is not adapted to highly alkaline soils.
Indiangrass	5 lbs PLS	A warm season, short, bunchgrass which has good drought tolerance. It is well adapted to medium-heavy to light, sandy textured soils. The seed stalk may be up to 3 feet tall.
Little Bluestem	4 lbs PLS	Warm season bunchgrass growing to a height of 3 feet. It has good drought tolerance and grows well on deep, shallow, sandy, fine textured and rocky soils.
Side-Oats Grama	5 lbs PLS	Side-Oats Grama is adapted to many soil types. It does well on well-drained uplands, shallow ridges, and rocky areas; however, it performs poorly on dense clays and very loose sands. It does best on calcareous and moderately alkaline soils and is well adapted to the eroded soils of the Black Belt.

Table 3 (Page 2)
NATIVE PERENNIAL GRASSES SUITABLE
FOR WILDLIFE HABITAT

Native Grass ^{1/2/}	Seeding Rate ^{3/4/}	Remarks
Switchgrass	2.5 lbs PLS	A vigorous, tall warm season grass which is well adapted to deep soils with good water holding capacity, including well drained to poorly drained soils. It will tolerate flooding for extended periods and will grow on sandy soils. Low-land types may grow to a height of 6 feet on moist, fertility sites.
Virginia Wildrye	20 lbs. PLS Drilled 30 lbs. PLS Broadcast	A native cool-season perennial grass that is adapted to moderately well drained flood plain sites and is adapted to full or partial sunlight. Adjust soil pH to about 6.0. After establishment apply fertilizer by soil test using small grain as the target plant. Typical planting locations are in the Piedmont and Costal Plains areas of Alabama.

1/ Adapted Varieties of Native Grasses for Alabama are:
 Big Bluestem - Kaw & Roundtree
 Coastal Panicgrass - Atlantic
 Indiangrass - Lometa & Rumsey
 Little Bluestem - Aldous, Cimarron, & Pastura
 Side-Oats Grama – Haskell
 Switchgrass - Alamo & Cave-In-Rock

2/ The planting dates for the adapted areas are:
 North - April 1 to July 1
 Central - March 15 to July 15
 South - March 1 to July 15
 Piedmont – Aug. 1 – Sept. 30
 Costal Plain – Sept. 1 – Oct. 30

3/ Seed should be covered **no more than** 1/4 inch deep at planting.

4/ When two grasses are used in mixture, reduce the seeding rate of each by 1/3. When more than two grasses are used in a mixture, reduce the seeding rate of each by 1/2.

5/ PLS - Pure Live Seed

6/ Eastern Gamagrass will only be planted as part of a mixture for wildlife habitat.

Table 4
NATIVE PERENNIAL FORBS AND LEGUMES SUITABLE FOR
ADDITION TO NATIVE GRASS SEEDING MIXTURES ^{1/}

Native Mixture	Seeding Rate	Remarks
Black-eyed Susan	2.0 lbs	Tolerant of a wide range of soils, but prefers a well-drained site with a pH level of 6.0-7.0. Needs full sun.
Butterfly weed	10.0 lbs	Requires a very well-drained sandy or gravelly soil in sun. May take up to two years to become established from seed.
Coreopsis (perennial)	10.0 lbs	A drought tolerant perennial. Withstands a wide range of conditions but prefers rich, well-drained soil with a pH level of 5.5-7.0.
Illinois Bundleflower	5 .0 lbs	A warm-season legume. Prefers clay to clay loam soil with some overflow water. It also grows well on sandy loam soils. Needs pH level of 6.0 to 6.5.
Moss Verbena	6 .0 lbs	Drought tolerant. Prefers light to heavy soils that are well-drained with a pH level of 6.0-7.0 and in full sun.
Purple coneflower	12.0 lbs	Prefers full sun to partial shade and well-drained soil with a pH level of 5.5-7.0; will tolerate poor, dry soil.
Partridge Pea	10.0 lbs.	A warm season, reseeding, annual legume. Grows best on well drained soils although it survives well on alkaline clay soils also.

1/ Planting dates for the adapted areas are:

North - April 1 to July 1

Central - March 15 to July 15

South - March 1 to July 15

2/ When two species are used in mixture, reduce the seeding rate of each by 1/3. When more than two species are used in a mixture, reduce the seeding rate of each by 1/2.

3/ If utilized in strips that are not part of a grass seeding mixture, these may be planted at the individual rate or as part of a wildflower mixture and mixed as noted in footnote #2 above.

Table 5**NATIVE SHRUBS SUITABLE FOR WILDLIFE**

Native Shrub	Primary Wildlife Uses/ Planting Rate per Acre¹	Remarks
Crab Apple	Food/300	A large shrub to small tree. Prefers moist, moist, well drained soils. Grows best in full sun.
Blackhaw	Food/300	A shrub up to 20 feet tall. Well adapted to dry sites as well as alkaline soils. Grows well in full sun.
Chickasaw Plum and other wild plums	Food/700 Cover/1200	Deciduous shrubs, grows to 10 ft. Performs well on well-drained, medium- to coarse-textured soils.
Serviceberry	Food/300	Deciduous branching shrub. Adapted to deep loamy to clayey soils, semiarid ridges, and rocky slopes in full sunlight or partial shade; also moist, deep soils in riparian zones.
Wax Myrtle	Cover/500 Food/300	A small to large evergreen shrub. Grows in sandy or sterile, often acid soil. A nitrogen fixer that grows quickly and provides excellent cover.
Native Blueberry	Food/300 Cover/700	A small to large shrub. Requires acidic soils (pH 4.5 to 5.2). Performs well in moist, well-aerated, well-drained soil high in organic matter.
Blackberry		Perennial plants with erect, stout, ridged canes (stems) 4 to 8 feet tall. Prefers moist but well-drained situations with an abundance of light. Often volunteers without planting, making establishment inexpensive.
Flowering Dogwood	Food/300	Large deciduous shrub that is shade tolerant. Grows best in shade or partial shade. provides berry-like fruit that are eaten by a variety of songbirds as well as squirrel, wild turkey and deer.

Table 5 (Page 2)

NATIVE SHRUBS SUITABLE FOR WILDLIFE

Native Shrub	Primary Wildlife Uses/ Planting Rate per Acre¹	Remarks
Eastern Redcedar	Food/100 Cover/700	Large evergreen shrub. Will reach tree size on some soils Fruit used by various song-birds. Used for roosting and escape cover for songbirds, bobwhite quail, and various other animals.
Yaupon	Cover/700	A large evergreen shrub. Prefers dry, well-drained soils and full sunlight. Grows well in sandy soils.
Elderberry	Food/300	A large shrub. May reach tree size. Adapted to a variety of soils and sites but is most common on moist to wet, fairly well-drained sites. Will grow in full sun or under shade.
American Beautyberry	Food/300	A medium size native shrub. Grows around openings and sunny woodland edges. Produces clusters of bright violet berry-like fruits that ripen in the fall.

¹/ Shrubs are typically established in linear plots of approximately 0.1 acre in size for each shrub type. Multiple plots may be established as needed to provide wildlife food and cover. Other native species with wildlife value may be approved by NRCS wildlife biologist on a case by case basis.

Table 6
TREES FOR CONSERVATION COVER

Trees	Purpose	Remarks
Pine species^{2/} Longleaf Pine ^{3/} Slash Pine ^{4/} Loblolly Pine	Forestry/Wildlife	Plant as specified by practice, either 500 to 700 trees per acre or plant 300 to 500 trees per acre.
Hardwood species Water Oak a mixture Willow Oak White Oak separate Nuttall Oak Northern Red Oak Southern Red Oak Flowering Dogwood Persimmon Black Cherry Yellow Poplar	Forestry/Wildlife Laurel Oak Overcup Oak Shumard Oak Cherrybark Oak Swamp Chestnut Oak Red Mulberry Black/Tupelo Gum Eastern Redbud Red Maple Green Ash	Plant 300 trees per acre. Establish 75% - 100% of the stand to of at least 2 species from this group. Each field should be considered as a stand. No more than 25% of the stand may be established to these species.

1/ Site and species must be suitable. See *Considerations for Forest Management on Alabama Soils*, NRCS Woodland Reference 13-2 for soil interpretations. Contact NRCS State Staff Forester for additional information on site suitability.

2/ Grow well on acid soils. Can grow on poorly drained to excessively drained soils. Refer to *Considerations for Forest Management on Alabama Soils* for the proper species to plant.

3/ Only suitable in areas of its historic range. Counties within the Longleaf Pine National Conservation Priority Area only. Not suitable on Blackland Prairie soils or soils that are ponded.

4/ Only suitable in South Alabama below highway 84.

Table 7

**NATIVE PERENNIAL FORBS and HERBACEOUS VEGETATION ^{1/}
TO BE ESTABLISHED BY CULTURAL PRACTICES ^{2/ 3/}
(EARLY SUCCESSIONAL HABITAT DEVELOPMENT)**

Native Vegetation	Remarks
Andropogon species (Broomsedge)	Perennial warm season bunchgrass. Managed best with use of prescribed fire and light winter disking.
Ambrosia species (Ragweed)	A drought tolerant summer annual. Withstands a wide range of conditions but is established by light disking in winter.
Illinois Bundleflower	A warm-season legume. Prefers clay to clay loam soil but also grows well on sandy loam soils. Managed with prescribed fire and light, winter disking.
Helianthus species (Native Sunflowers)	Annual or perennial forb with yellow flowers. Managed with light disking.
Desmodium species (Beggarweeds)	Prefers full sun to partial shade and well-drained soil with a pH level of 5.5-7.0; will tolerate poor, dry, sandy soil. Managed with light disking and prescribed fire.
Partridge Pea	A warm season, reseeding, annual legume. Grows best on well drained soils although it survives well on alkaline clay soils also. Yellow flowers. Managed with light, winter disking and prescribed fire.
Crotan species	An erect, freely branched, summer annual.
Smartweed	A summer annual. Usually found in moist soils. Flowers usually white or pink.

Table 7 (Page 2)

**NATIVE PERENNIAL FORBS and HERBACEOUS VEGETATION ^{1/}
TO BE ESTABLISHED BY CULTURAL PRACTICES ^{2/ 3/}
(EARLY SUCCESSIONAL HABITAT DEVELOPMENT)**

Native Vegetation	Remarks
Composite species (all others in Asteraceae family)	Winter or summer annual that may occur in large clumps of many plants. Flowers usually white, pink or yellow. Adapted to wide range of soils.
Oenothera species (Primroses)	Tall, erect annual or biennial with yellow flowers.
Panicum species	Native summer annual and perennial grasses. Excellent drought tolerant and performs well on infertile sites. Managed with light disking and prescribed fire.

1/ Forbs - Any non-woody and non-grass or grasslike plants.

2/ Cultural Practices - approved management/maintenance practices which alter or set back natural succession, including use of approved herbicides, light disking, or prescribed burning. Mowing is acceptable if other practices are not practicable, although it is not desirable for most wildlife uses. See NRCS FOTG Conservation Practice Standard Early Successional Habitat Development/Management-647 for additional information.

3/ This list also includes all of those native grass species listed in Table #3.

Table 8

**INTRODUCED HERBACEOUS VEGETATION
TYPICALLY UTILIZED IN ANNUAL FOOD PLOTS FOR WILDLIFE^{1/}**

Crop	Seeding Rate/Ac.	Planting Dates & Adapted Area		
		North	Central	South
<u>VEGETATION</u>				
Alfalfa	30 lbs.	Aug. 15 - Oct. 1	Mar 1 - Jul 1	Feb 1 - Nov 1
Austrian winter peas	35 lbs.	Sept. 1 - Oct. 15	Sept. 1 - Oct. 15	Sept. 15 - Oct. 31
Barley	100 lbs.	Sept. 1 - Oct. 15	Sept. 1 - Oct. 31	Sept. 15 - Nov. 15
Caley Peas	50 lbs.	Aug. 25 - Oct. 15	Sept. 1 - Oct. 15	-
Chufa	40 lbs.	May 15 - June 30	May 15 - June 15	May 15 - June 15
Clover, Arrowleaf	6 lbs.	Aug. 25 - Oct. 1	Sept. 1 to Oct. 15	Sept. 1 to Nov. 1
Clover, Ball	4 lbs.	Sept. 1 - Nov. 1	Sept. 1 - Nov. 1	Sept. 1 - Nov. 1
Clover, Crimson	25 lbs.	Aug. 25 - Oct. 1	Sept. 1 - Oct. 15	Sept. 15 - Nov. 15
Clover, Red	15 lbs.	Sept. 1 - Nov. 1	Sept. 1 - Nov. 1	Sept. 15 - Nov. 15
Clover, Subterranean	10 lbs.	Aug. 25 - Oct. 1	Sept. 1 - Oct. 15	Sept. 15 - Nov. 15
Clover, White/Ladino	3 lbs.	Sept. 1 - Nov. 1	Sept. 1 - Nov. 1	Aug. 15 - Nov. 15
Corn	7-10 lbs.	April 1 - May 10	Mar. 20 - April 20	Mar. 1 - April 10
Cowpeas	120 lbs.	May 1 - June 15	May 1 - July 1	May 1 - Aug. 1
Egyptian Wheat	10-20 lbs.	May 15 - June 1	May 15 - June 15	May 1 - June 15
Florida Beggarweed	12 lbs.	-	April 15 - June 15	April 15 - July 1
Lespedeza, Kobe	30 lbs.	Feb. 15 - April 1	Feb. 15 - April 1	Feb. 1 - Mar. 15
Lespedeza, Korean	25 lbs.	Feb. 15 - April 1	Feb. 15 - April 1	-
Lespedeza, Common	25 lbs.	Feb. 15 - April 1	Feb. 15 - April 1	Feb. 1 - Mar. 15

**INTRODUCED HERBACEOUS VEGETATION
TYPICALLY UTILIZED IN ANNUAL FOOD PLOTS FOR WILDLIFE**

Millet, Browntop	25 lbs.	May 1 - Aug. 1	April 1 - Aug. 15	April 1 - Aug. 15
Millet, Dove Proso	25 lbs.	May 1 - Aug. 1	April 1 - Aug. 15	April 1 - Aug. 15
Millet, Foxtail	25 lbs.	May 1 - Aug. 1	April 1 - Aug. 15	April 1 - Aug. 15
Millet, Japanese	25 lbs.	May 1 - Aug. 1	April 1 - Aug. 1	April 1 - Aug. 1
Millet, Pearl	25 lbs.	April 20 - July 1	April 15 - July 1	April 1 - July 15
Oats	90 lbs.	Aug. 25 - Oct. 1	Sept. 1 - Oct. 15	Sept. 15 - Nov. 1
Partridge Pea	15 lbs.	Feb. 15 - May 15	Feb. 15 - May 15	Feb. 15 - May 15
Rye	90 lbs.	Aug. 25 - Oct. 1	Sept. 1 - Oct. 15	Sept. 15 - Nov. 1
Sorghum, Grain	8-20 lbs. (rows)	May 1 - Aug. 1	April 15 - Aug. 1	April 1 - Aug. 15
Soybeans	40 lbs. (Rows) 75 lbs. (Drill)	May 1 - June 1	May 1 - June 15	May 1 - July 1
Sunflower	10 lbs. (Rows)	April 1 - July 15	April 1 - July 15	April 1 - July 15
Sweetclover	15 lbs.	Sept. 1 - Oct. 15	Sept. 1 - Oct. 30	-
Vetch, Common	20 lbs.	-	Sept. 1 - Oct. 15	Sept. 15 - Nov. 1
Vetch, Hairy	20 lbs.	Sept. 1 - Oct. 15	Sept. 1 - Oct. 15	Sept. 15 - Nov. 1
Wheat	90 lbs.	Aug. 25 - Oct. 1	Sept. 1 - Oct. 15	Sept. 15 - Nov. 1

1/ The dash (-) means not recommended.

Guidelines for Openings in Forestland

Establishment

Openings must be established to early successional, native herbaceous vegetation. Introduced grasses and legumes should not be used for cover in these areas. See table 7 for approved covers. *The only exception to this is the use of temporary, annual covers as a nurse crop which are being used to provide erosion control and will be allowed to undergo natural succession to attain the proper native herbaceous vegetation.*

Where trees are already established, the 15-20% openings will be established by removing pine trees. This normally occurs during the thinning process.

For new tree planting, openings will be established by *not* planting trees on 15-20% of the field. These openings will be established at the time of the planting process.

Openings should have a minimum width of 60 feet. The 15-20% openings may be of various shapes and sizes. Avoid locating openings adjacent to public roadways. However, to optimize wildlife habitat the openings should be linear shaped and located within the stand. At least 1.0 acres in each opening is preferred. For tracts with several fields, the openings must be located within each field except for very small fields, as listed below. NRCS field office personnel can assist in the location and layout of openings.

Consider the acreage of each field for calculation of the openings except as noted below.

<u>Individual Field Size</u>	<u>Opening</u>
<3 acres (a single field)	15-20% of field
3.0-7.0	15-20% of field
>7.0 acres	15-20% of field with 1.0 acre minimum in one opening

Multiple Fields of <3.0 acres

With multiple small fields which are less than 3.0 acres each, if each field is considered for acreage calculation of 15-20%, the openings would essentially be too small to maintain and manage. In these cases, consider the whole acreage of multiple fields which are less than 3 acres and determine acreage of the openings based upon the whole. An example would be to place the opening in one field or in some cases, and entire field may be devoted to the opening.

Guidelines For Openings

Lengths/Widths

Openings with a width of 100' to 200' provide excellent wildlife benefits. Although the minimum width for openings is 60', it should be noted that there is less wildlife benefit at this size. The wider openings also are less of a problem to maintain than those which are narrow. Linear shaped openings that run across the field are considered best as they provide a greater edge.

Since the wildlife opening will have to be manipulated periodically for maintenance, choose areas that are easily accessible and have the least likelihood of erosion problems (e.g. avoid steepest slopes and streamside management zones). The openings will not have to be planted unless erosion is a problem. If erosion control is needed, use a nurse crop such as winter annuals and allow the stand to undergo natural succession. Bermuda grass, fescue and other introduced grasses or legumes are not acceptable cover in these openings since they are not desirable for the intended purpose.

MAINTENANCE

To maintain these openings throughout their expected life, some manipulation such as light disking, prescribed burning, mowing, or herbicide application will be necessary to prevent these openings from becoming established in woody vegetation. Such manipulation will also stimulate the production of important wildlife plants and reduce rank vegetative growth. The purpose of these openings is to provide nesting and feeding habitat for birds such as the Bobwhite Quail, Eastern Wild Turkey and non-game birds. Experience has shown that normally there should be some manipulation at least once every three years. For best results, the manipulation should not be done over the entire area at one time, but should be done on a staggered basis (e.g., one-third of the area each year). Where burning is used, the Alabama Forestry Commission must be contacted to obtain a permit. Only those properly trained and experienced in the use of prescribed fire should conduct this practice. Burning can cause damage to property and loss of human life when improperly conducted. Follow all applicable state and local laws and regulations. Light, winter disking is a preferred management practice. Mowing results in fewer wildlife benefits than any of the other manipulation methods. All manipulation in openings should be avoided during the nesting period of April 1-July 15. It should be noted that any participant interested in protecting habitat during the *entire* nesting period, should refrain from conducting maintenance in openings from March 1-September 15. Annual mowing of the entire CRP field for generic vegetation control or aesthetics is not authorized.

When treatment of invasive vegetation is needed, use a spot treatment method. This spot treatment could be applied in several methods such as with labeled herbicides, selective disking or mowing. Spot treatment is also considered to be the most economical approach to invasive weed control. Cogongrass, an extremely invasive grass in southern Alabama, should be immediately addressed on any CRP site on which it is found. It should be spot treated with herbicides or repeated disking to destroy the roots. Areas that are not readily accessible to maintenance equipment may be planted in a competitive herbaceous species to keep reinfestation from occurring. Although competitive native species are highly preferred, bahia grass will be approved for this purpose by NRCS state office personnel on a case by case basis. No other tame grasses should be used for this purpose.